

6.13%, pregnancy 5.57% and nervous system diseases 3.45%. These groups of diseases are, by importance, the main cause of absence from work in all the regions. The rate of sick leaves over 30 days for the entire territory of the Republic of Serbia is 7.06%. The point of interest here is that this rate is very uneven in various regions and amounts from 1.72% to 18.27%. The total liabilities of RHII in the period from January to September 2005, for reimbursement of sick leaves were €56,732,175. **CONCLUSIONS:** Data obtained by this analysis illustrate that the sick leave rate is very high and uneven, which is the result of absence of medical doctrine standards for evaluation of temporary work disability. In addition, the most frequent reasons for sick leaves are the effects of bad habits, poverty and risk factors: smoking, lack of physical activity, overweight and generally poor life quality and insufficient protection at work by employers.

PHP28

PILOT STUDY OF THE IMPACT OF NEW PRICING SCHEMA ON DRUG PRICES IN REPUBLIC SERBIA

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OBJECTIVE: To analyze the price changes in the leading therapeutic groups and medicines after the introduction of the new pricing schema in Serbia. **METHODS:** The legislative analysis of the new pricing schema was applied on price changes. The leading 10 medicines by therapeutic classes both in financial terms were chosen on the basis of the previous market analysis. The relative share of price changes and waged price indexes were calculated. **RESULT:** In 2005 the Ministry Council has issued the new drug prices regulation that changes the pricing approach from "cost+" to reference pricing. Italy, Croatia and Slovenia were chosen for reference countries and prices have been compared at wholesale level on the basis of different discounting percentages matching the local interest rate. The manufacturers should provide a set of documents including pharmacoeconomic analysis in free form for new price registration. The goal of the pharmacoeconomic analysis should be to evaluate the impact of the new price on the affordability. The market analysis revealed that the leading ATC groups in financial terms are cardiovascular medicines (C), anti infective (J), acting on muscles and bones and anxiolytics (N) accounting for near 30% of the whole market. After the introduction of the new pricing schema the leading medicines in those ATC groups changed their characteristics—group C quantities prescribed and total cost increased by 10,86% and 21,08% respectively; group J reduced quantity by 15,50% and increased value by 19,02%, group M reduce quantity by 15,46% and total cost by 99, 40% and anxiolytic increased quantity and total cost by 8,08% and 63,75% respectively. **CONCLUSION:** New pricing schema lead to the increasing usage of the most important medicines in value terms but has controversial effect on quantities consumed.

PHP29

PHARMACEUTICAL BUDGET ALLOCATION: A CAPITATION MODEL

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OBJECTIVES: To allocate an annual budget (2006) for each primary care health team (PHCT) in relation to pharmaceutical expenditure. **METHODS:** Three factors are considered in the allocation formula: A capitation factor: allocation for insured population based on real average costs per capita of the autonomous community (7 million people) considering 20 isocost age bands. Pearson's variation coefficient was applied to

define isocost bands (criteria: PCV < 10% in each band). Gender is also considered in this indirect standardization process. This allocation value is increased by the monetary flows generated by not-assigned insured (other PHCT, other autonomous communities and foreigners) and subtracted by the pharmaceutical cost service lent to their own insured population in other PHCT. This capitation factor is increased in the coefficient of global growth expenditure established for 2006 (4%). Modulator factor considers the number of old people's homes managed, the variation of insured population during last year and the value of the rate of use (Pearson's correlation coefficient between standardised expenditure per inhabitant and the rate of use is 53% ($p < 0.05$)). Finally an adjustment factor is applied in order to establish a temporal horizon. Three PHCT groups (33–66 percentiles) are defined according to deviations in relation to real expenditure for 2005 (normal distribution: $p > 0.1$ in Z-Kolmogorov Smirnov). For every group a minimum and maximum increase is determined, maintaining the order and the global increase established for all the PHCTs (4%). **RESULTS:** considering population structure for each PHCT makes possible to obtain allocations per capita between €157–350. For 99% of PHCT, modulator factor doesn't represent an impact above $\pm 20\%$ over capitation factor. For each PHCT, final allocation represents an increase between 2%–6.25% on pharmaceutical expenditure of 2005. **CONCLUSION:** The model leaves behind historical models of growth, and establishes a high degree of responsibility to PHCTs in relation to pharmaceutical expenditure.

PHP30

ASSESSING THE ECONOMIC AND SAFETY IMPACT OF GLASS VERSUS POLYMER CONTAINERS IN A RADIOLOGY DEPARTMENT

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OBJECTIVES: Diagnostic x-ray procedures using contrast imaging agents especially in CT are on the rise. Typically contrast media are available in glass bottles and associated with a number of potential problems including increased risk of injury, costs of waste disposal, lost revenue, and disturbances in department routines. A model was developed to estimate the annual financial and safety impact of switching glass to a polymer container for a typical radiology department. **METHODS:** The model was developed using results from a multi-European market survey of radiology technologists on rates of technologists' injuries from glass and/or metal crimps and from bottle breaks. Survey results were confirmed by a radiology department head from a UK community hospital. In addition, disposal costs for waste, acquisition cost of contrast media, utilization patterns of media, procedure rates, technologist salaries, and cost of disturbed department routine were incorporated in the final budget comparison. **RESULTS:** For a typical community hospital in the UK conducting 56 procedures per shift, there is a potential to waste approximately 200 manpower hours for clean-up of glass breaks, injury care, and setting up additional contrast imaging sets. This is associated with annual revenue loss to a department. Budgetary gains are noted in lower disposal costs for polymer bottles as they are lighter in weight. Significantly more disposal costs gains would be noted with the implementation of separating hazardous from regular waste. PLUSPAK, a polymer bottle containing iohexol, a low osmolar contrast medium, has the potential to save a radiology department considerable savings due to cost-offsets associated with lower injury rates, product wastage, disposal waste costs and faster departmental efficiencies. **CONCLUSIONS:** Improvements in radiology technologist

safety and departmental efficiencies can be realized with a glass to polymer bottle conversion.

PHP31

THE ECONOMIC EVALUATION OF HOME PHARMACIES IN HEALTH AREA

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OBJECTIVES: To analyze and evaluate the economic impact of cost of stored medicines at home. **METHODS:** The population to investigating is constituted by 146,396 homes. The size muestral calculated was 196 homes (alpha error = 0,05; confidence level 95%). The studied variables were: n persons who compose the home; n 65 years older; n of stored medicines and classes; sociocultural level; symptoms of disease in 15 days before the interview; n of persons with chronic disease and type; etc. The statistical analysis was made by the SPSS package. For quantitative: mean, DS, IC95%; for qualitative: proportions. For the analysis multivariate Student's T-test for quantitative variables and test of Chi-square for the qualitative ones. For the calculation of the cost of medicines stored in the homes one has considered 2 values: the cost of the found medication (price sales) and the real value of this medication (considering the amount of present medicine in the package at the moment of the interview). **RESULTS:** The total number of polled homes was of 360. The members average for home was of 3.9 (IC95% 3.8–4,0). The total of found pharmaceutical specialities was 8.544, of them 61% was financed by the NHS, and of financed ones 26.5% and 12.6% they were not bought with and without medical prescription, respectively. The average value for pharmaceutical specialities stored was €130.5/home (IC95%: 121.48–139.48). **CONCLUSIONS:** A high percentage of medication exists stored (12.6%) that in spite of needing medical prescription did not have it. The self medication increases with the level of studies. Almost 75% of the stored medication was not used by any member of the home, and almost 11% they were expired medicines. The total cost of medicines stored in our city can range between €11–13 million (10% of the whole of expense in medicines in Malaga).

PHP32

PATIENT SATISFACTION WITH THE PHARMACY FIRST MINOR AILMENTS SCHEME

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OBJECTIVES: As part of the UK Government priorities to improve access for people in primary care, the 'Pharmacy First Minor Ailments' scheme was introduced by Nottingham City Primary Care Trust in December 2003. People can ask for the service, covering 12 minor ailments, at any participating pharmacy and those who are exempt from NHS prescription charges can receive the scheme's formulary medicines free of charge. This study aimed to measure the users' satisfaction with the scheme. **METHODS:** Questionnaires were distributed to scheme users between May and December 2005. Satisfaction was measured using five-point Likert scales for 24 items across eight dimensions: general satisfaction, access/convenience, quality of drug, physical environment, pharmacist's competence, communication, interpersonal aspect and time spent with pharmacist. Individual dimension and overall satisfaction scores for each respondent was calculated by summing the appropriate individ-

ual items scores. **RESULTS:** A total of 143 questionnaires were completed (response rate 14%). Most respondents were white women and the mean age was 33 years (range 17–62). Approximately half of respondents had annual household income below 10,000 GBP. Most respondents were not economically active with 36% looking after family and 25% unemployed. The mean satisfaction score was 99.7 (SD 11.4, range 67–120, possible score 24–120). The highest satisfaction score was reported for access/convenience dimension and the lowest satisfaction with the physical environment. Comparisons of overall satisfaction scores did not demonstrate significant differences with regard to gender, age, ethnicity, educational level, employment and frequency of using the service. However, those with a lower income had significantly higher overall satisfaction scores (ANOVA, $F = 3.272$, $p = 0.042$). **CONCLUSIONS:** Findings demonstrated a high level of satisfaction with the 'Pharmacy First Minor Ailments' scheme, particularly for those with lower incomes. Thus the scheme can be seen as a successful way of improving access to primary care in Nottingham City PCT.

PHP33

OCCUPATIONAL INJURIES: USE AND COST OF EMERGENCY DEPARTMENT FOR TREATMENT OF ACCIDENTAL HYPODERMIC NEEDLE PUNCTURES

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OBJECTIVES: Needle punctures are an occupational hazard for health care workers and others. This analysis was performed to assess use and associated costs of Emergency Department (ED) care for work-related needle punctures. **METHODS:** 2001–2003 statewide Massachusetts ED visit databases were analyzed. Work-related needle punctures were identified using diagnosis codes, E-code 920.5 (accidental cutting/ piercing with hypodermic needle) and a primary payer code indicating workmen's compensation. Cost estimates (2006 US\$) include facility, ancillary and physician services. ED charges were adjusted using 0.55 cost-to-charge ratio, appropriate inflation indices and geographic factors to reflect U.S. national values. **RESULTS:** Over the three years, 5288 ED visits for accidental needle punctures were identified. Of those, 3742 (71%) were work-related (annual visits: 2001 = 1171; 2002 = 1262; 2003 = 1309). Mean age was 38 years (median: 37, range: 16–77); 75% were female. Superficial injuries accounted for 9%; 81% were coded as finger/hand/arm wound or injury; 4% other injuries and 5% reflected an administrative encounter. No hospitalizations or deaths occurred. Almost all (98%) patients were treated and released with 2% leaving against medical advice or disposition unknown. Average visit duration was 1.6 hours (median: 1.2) at an average visit cost of \$319 (median: \$255). On average, 1699 ED hours were utilized per year. The average total cost per year for all work-related needle puncture visits was \$418,450 with a cumulative three year cost of roughly \$840,000. **CONCLUSIONS:** The ED is utilized as a primary treatment center for work-related needle punctures, even when the injury is superficial or visit occurs as part of the administrative process. Although the risk of contracting a blood-borne virus and related patient anxiety need to be addressed when such an injury occurs, an alternative, less resource intensive location for evaluating these injuries should be considered, particularly in high risk areas, such as hospitals, given ED time and cost consequences.